

## REMARKS

Claim 11 was rejected under 35 USC § 102(b) as anticipated by Ahmed et al US 5,942,346 ('346). This rejection is respectfully traversed. Claim 11 has been cancelled and replaced by new Claim 12. For a prior art reference to anticipate a set of claims, each and every limitation of the claims must be disclosed in that reference. *Glaxo v. Novopharm*, 34 USPQ2d 1565 (Fed. Cir. 1995). The '346 reference does not disclose an optical pyrometer and therefore lacks a limitation of the instant invention. Therefore, Applicants believe that the reference does not anticipate the claims and respectfully request that the rejection be withdrawn.

Claims 1-8 were rejected under 35 USC § 103(a), as obvious over Jenkins US 4,789,540 ('540) in view of Jacobs et al EP 629,578 ('578) and Michalski et al, Temperature Measurement, 2<sup>nd</sup> Edition, John Wiley & Sons, Ltd, pp. 209-228, 2001 (Temperature Measurement). This rejection is respectfully traversed. The Temperature Measurement reference is dated "2001". Applicants note that the actual date may be less than one year from Applicants' US filing date of February 27, 2002 and certainly does not predate Applicants' invention date which can be shown via the priority documents as having been at least August 31, 1999. Therefore, this may not be a valid reference.

To establish a *prima facie* basis for obviousness, three criteria must be met. First, there must be some suggestion or motivation, either in the reference itself or in the knowledge generally available to one of ordinary skill in the art, to modify the reference. Second, there must be a reasonable expectation of success. Finally, the prior art reference must teach or suggest all the claim limitations. The teaching or suggestion to make the claimed combination must be found in the prior art, and not based on applicant's disclosure [MPEP § 2142; *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991).]

Under amended Claim 1, the process of the instant invention operates under non-steady demand of conversion product. None of the above-cited references discloses handling non-steady demand or suggests such a topic. The operating conditions in both the '540 and the '578 references are steady state conditions and address problems associated with those conditions. Combining the references does not arrive at the instantly claimed combination. In view of the above amendments

and discussion, Applicants believe that a *prima facie* basis for obviousness has not been established and respectfully request that the rejection be withdrawn.

Claims 9 and 10 were rejected under 35 USC § 103(a), as obvious over the '540 reference in view of the '578 and Temperature Measurement references, further in view of Perry et al, Perry's Chemical Engineer's Handbook, 7<sup>th</sup> Edition, McGraw-Hill, pp. 8-65 to 8-84, 1997 (Perry's). This rejection is respectfully traversed. The '540 and '578 references have been discussed above. The referenced pages of Perry's disclose that a valve has an actuator, however, they do not disclose a "rapid response" actuator or discuss such problem. In fact, the reference discloses that actuator valves are often used as "failsafe" valves – resulting in the valve being either on or off, but not adjusting in between and also discusses them in the context of steady state conditions (p. 8-66, second column, first paragraph). Therefore, Applicants believe that the combined references do not establish a *prima facie* basis for obviousness and respectfully request that the rejection be withdrawn.

Claims 1-8 were rejected under 35 USC § 103(a), as obvious over the '346 reference in view of the '578 reference and Temperature Measurement. This rejection is respectfully traversed. The Examiner asserts that the '346 reference discloses determining the actual temperature of the upstream surface of the catalyst bed. However, according to the reference, the temperature measured is that of the reactants, not the catalyst (col. 6, lines 43-48). There is no teaching or suggestion to monitor the temperature of the catalyst bed. Therefore, Applicants believe the combination of the '346 references, the '578 reference and the Temperature Measurement reference does not establish a *prima facie* basis for obviousness and Applicants respectfully request that the rejection be withdrawn.

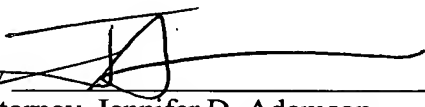
Claims 9 and 10 were rejected under 35 USC § 103(a), as obvious over the '346 reference in view of the '578 reference and Temperature Measurement, further in view of the Perry's reference. As discussed above, the '346 reference does not teach or suggest monitoring the temperature of the catalyst bed. Applicants believe that the additions of the '578 reference, the Temperature Measurement reference and the Perry's reference do not establish a *prima facie* basis for obviousness. Therefore, Applicants respectfully request that the rejection be withdrawn.

**CONCLUSION**

In view of the above amendments and remarks, Applicants believe the instant application to be in condition for allowance and respectfully request that such action be taken.

Respectfully submitted,

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